CLAIMS

What is claimed is:

1. An apparatus comprising:

a transmitter able to control a sign of a bi-polar base band amplitude signal based on at least one predetermined criterion related to an input signal of the transmitter.

2. An apparatus according to claim 1 wherein

said transmitter is able to generate an output signal by combining said bi-polar base band amplitude signal with a phase modulated signal.

3. An apparatus according to claim 2 wherein said transmitter comprises:

a base-band processor able to provide said bi-polar base band signal.

4. An apparatus according to claim 3, wherein said base band processor is able to determine whether said input signal approaches a zero-crossing, and to invert the sign of said bi-polar amplitude signal if said input signal approaches a zero-crossing.

5. An apparatus according to claim 4 wherein said base band processor is able to determine whether said input signal is within a domain proximal to the origin of a predefined complex plane.

6. An apparatus according to claim 5 wherein said base band processor is able to determine whether a distance between a value related to said input signal is closer to said origin than a predetermined fraction of a maximal signal amplitude.

7. An apparatus according to claim 3 wherein said transmitter further comprises:

a modulator operably coupled to said base band processor to generate said phase modulated signal.

8. An apparatus according to claim 2 wherein said transmitter further comprises:

a mixer to combine said bi-polar base-band signal with said phase modulated signal.

9. The apparatus of claim 8 wherein said transmitter further comprises:

a power amplifier operably coupled to the output of said mixer to amplify said combined signal.

10. A method comprising:

controlling a sign of a bi-polar base band amplitude signal based on at least one predetermined criterion related to a transmission input signal.

11. The method of claim 10 further comprising

generating an output signal by combining said bi-polar base-band amplitude signal with a phase modulated signal.

12. The method according to claim 10, wherein controlling a sign comprises:

determining whether said input signal approaches a zero-crossing; and

inverting the sign of said bi-polar amplitude signal if said input signal approaches a zero-crossing.

13. The method according to claim 12 wherein determining whether said input signal approaches a zero-crossing comprises:

determining whether said input signal is within a domain proximal to the origin of a predefined complex plane.

14. The method according to claim 13 wherein determining whether said input signal is within a domain proximal to the origin of a predefined complex plane comprises:

determining whether a distance between a value related to said input signal is closer to said origin than a predetermined fraction of a maximal signal amplitude.

15. A wireless communication device comprising:

a transmitter able to control a sign of a bi-polar base band amplitude signal based on at least one predetermined criterion, to generate an output signal;

an internal antenna to transmit said output signal.

16. A wireless communication device according to claim 15 wherein said transmitter is able to generate said output signal by combining said bi-polar base band amplitude signal with a phase modulated signal.

17. A wireless communication device according to claim 15, wherein said transmitter comprises:

a base-band processor able to provide said bi-polar base band amplitude signal.

18. A wireless communication device according to claim 17, wherein said base band processor is able to determine whether said input signal approaches a zero-crossing, and to invert the sign of said bi-polar amplitude signal if said input signal approaches a zero-crossing.

19. A wireless communication device according to claim 18 wherein said base band processor is able to determine whether said input signal is within a domain proximal to the origin of a predefined complex plane.

20. A wireless communication device according to claim 19 wherein said base band processor is able to determine whether a distance between a value related to said input signal is closer to said origin than a predetermined fraction of a maximal signal amplitude.

21. A wireless communication device according to claim 16 wherein said transmitter further comprises:

a mixer to combine said bi-polar signal with said phase modulated signal.

22. A wireless communication system comprising:
at least two communication stations wherein at least one communication station of the at least two communication stations comprises a transmitter able to control a sign of a bi-polar base band amplitude signal based on at least one predetermined criterion, to generate an output signal.

23. A wireless communication system according to claim 22 wherein said transmitter is able to generate said output signal by combining said bi-polar base band amplitude signal with a phase modulated signal.

24. A wireless communication system according to claim 22 wherein said transmitter comprises:

a base-band processor to provide said bi-polar base band amplitude signal.

25. A wireless communication system according to claim 23 wherein said transmitter further comprises:

a mixer to combine said bi-polar signal with said phase modulated signal;

26. An article comprising: a storage medium, having stored thereon instructions that, when executed by a computing platform, result in:

controlling a sign of a bi-polar base band amplitude signal based on at least one predetermined criterion related to a transmission input signal.

27. The article of claim 26, wherein the instructions further result in:

generating an output signal by combining said bi-polar base-band amplitude signal with a phase modulated signal.

28. The article of claim 26, wherein the instructions that result in controlling a sign, result in:

determining whether said input signal approaches a zero-crossing; and

inverting the sign of said bi-polar amplitude signal if said input signal approaches a zero-crossing.

29. The article of claim 28, wherein the instructions that result in determining whether said input signal approaches a zero-crossing result in:

determining whether said input signal is within a domain proximal to the origin of a predefined complex plane.

30. The article of claim 29, wherein the instructions that result in determining whether said input signal is within a domain proximal to the origin of a predefined complex plane, result in:

determining whether a distance between a value related to said input signal is closer to said origin than a predetermined fraction of a maximal signal amplitude.